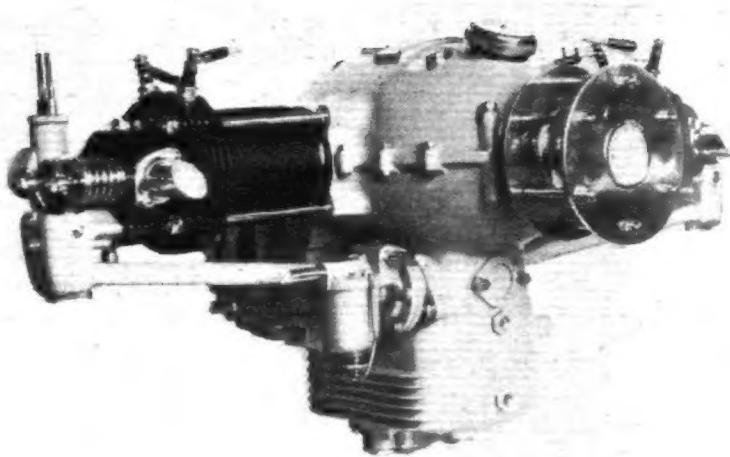


One of the smallest engines exhibited, the Train 2T., has an underhead cam-shaft.

The Walter Atom of 1,100 c.c. capacity has a finned oil compartment below the crankcase; 28 h.p. is the maximum output.



Nine-cylinder radial engines appear the most numerous; eight of the total of seventeen manufacturers show examples, and of these Walter have a range of eight engines from the 150/165 Gemma I to the 400/450 Super Castor II. Most points of design are standardised in these engines. A reduction gear *a satellites* of 3:2 ratio is fitted to the Bora II-R, Super Castor I and II and Pollux II, Castor and Pollux having strengthening ribs from crank case to reduction gear face. With the exception of the Gemma, all the engines have two totally enclosed push-rods per cylinder and two separate rocker boxes.

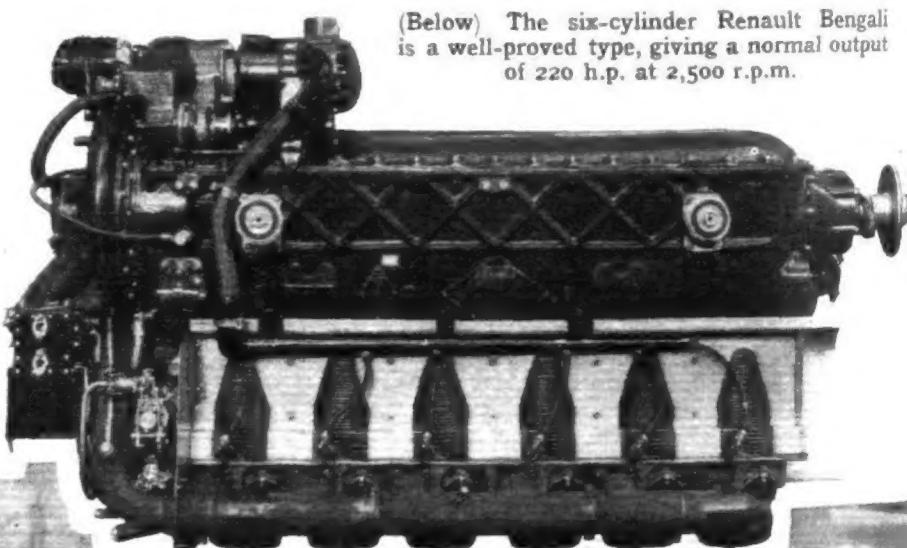
The Bristol stand is at all times crowded. The Pegasus X, with a maximum output of 915 h.p., and the 830 h.p. Mercury VIII, are two of the most powerful engines at the show. The sleeve-valve Perseus, one of four which Imperial Airways have been testing in *Syrinx*, is creating great interest. Added to these is an extraordinarily interesting last-minute arrival, of which more anon.

On the Curtiss-Wright stand may be seen the latest Cyclone G, which gives 1,000 h.p. for take-off, and the re-rated Whirlwind F. of 400/480 h.p., which has the new super-finned heads and Wright dynamic damper. Both engines have automatic rocker lubrication with improved oil sealing and very neat ignition screening. Uniform cooling of

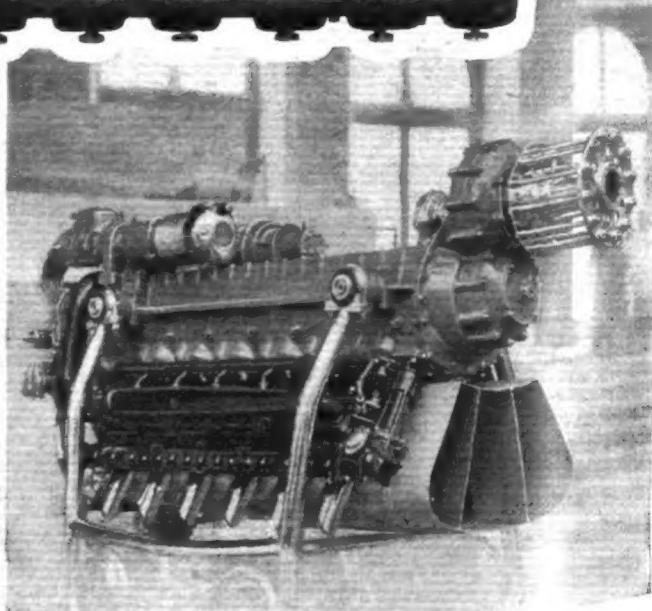
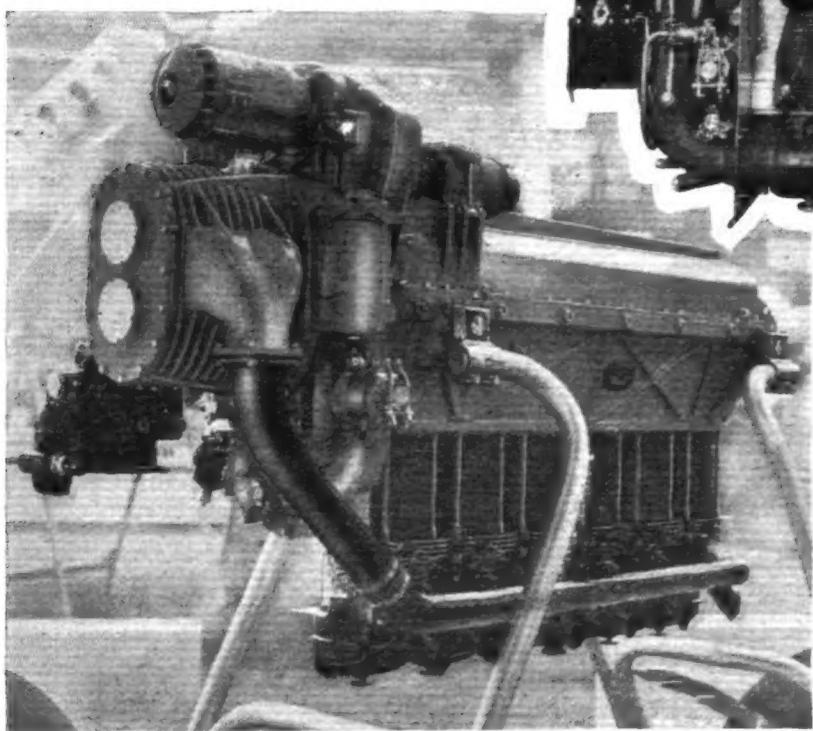
cylinder barrels and heads is claimed, by reason of the use of full pressure inter-cylinder baffles. The Cyclone G is to power the new Douglas and Boeing bombers in America, while among manufacturers of civil types the Whirlwind is installed in certain Waco, Stinson and Fairchild products, and also in Howard and Beechcraft models.

Nine-cylinder radials of under 100 h.p. are rare, but the Salmson range of radials starts with the improved 9 ADR of only 60 h.p. Many small aircraft, including the two-seater cabin *Pou*, and the Bassou pusher of the type recently brought to England by Col. Fitzmaurice are equipped with this little unit. The largest Salmson is the 9 AG-01 with an output of 350/390 h.p. The 9 ABA, of 280 h.p. rating, powers the Romano 80 trainer. The 9 NAS, NO and ABA have a neat front exhaust collector ring, together with hot-spot intake. Many aircraft, including Lioré et Olivier, Mureaux,

(Below) The six-cylinder Renault Bengali is a well-proved type, giving a normal output of 220 h.p. at 2,500 r.p.m.



(Below) An interesting Regnier engine with Roots blower.



(Right) A canon airscrew boss and an unusual air scoop are the special points of the Salmson inverted vee twelve.